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CONSIDERATION OF CONCRETE PROPOSALS FOR MID- AND LONG-TERM MEASURES AND ASSOCIATED IMPACT ASSESSMENTS IN THE CONTEXT OF PHASE I OF THE WORK PLAN AS WELL AS THE PROPOSAL TO ESTABLISH AN INTERNATIONAL MARITIME RESEARCH BOARD

Use of funds raised by a levy on CO_2 emissions

Submitted by ICS

SUMMARY

Executive summary:	Further to the detailed proposal for a levy on CO_2 emissions set out in document ISWG-GHG 10/5/2 (ICS and INTERCARGO), which proposed the establishment of an IMO Climate Fund (ICF) to expedite the transition to zero-carbon fuels, ICS makes some suggestions as to how the considerable funds that could be raised might be utilized. Taking account of the Dhaka-Glasgow Declaration at COP 26, ICS also supports an appropriate proportion of the funds raised to be used out-of-sector to assist climate actions by vulnerable developing countries.
Strategic direction, if applicable:	3
Output:	3.2
Action to be taken:	Paragraph 19
Related documents:	ISWG-GHG 10/5/2, ISWG-GHG 12/3/2, ISWG-GHG 12/3/8; MEPC 76/7/7, MEPC 76/7/12, MEPC 77/7, MEPC 77/7/4, MEPC 77/7/23, MEPC 77/16; MEPC.1/Circ.885 and Resolution MEPC.308(73).

Introduction

1 ISWG-GHG 12 will continue consideration of possible mid-term measures including market-based measures (MBMs). At ISWG-GHG 10, ICS and INTERCARGO set out, in document ISWG-GHG 10/5/2, a comprehensive regulatory package including draft amendments to MARPOL Annex VI, to demonstrate how a mandatory levy, based on contributions by ships per tonne of CO_2 emitted, could be brought into effect globally to help close the price gap between conventional and alternative fuels. The proposal in document

ISWG-GHG 12/3/8 (ICS) was made in response to the proposal set out in document MEPC 76/7/12 (Marshall Islands and Solomon Islands) and then elaborated further in document MEPC 77/7/4 (Marshall Islands and Solomon Islands). As requested by ISWG-GHG 10, document ISWG-GHG 12/3/8 contains an initial assessment of the impact of a levy on States analysing a range of potential levy quanta.

2 The proposal in document ISWG-GHG 10/5/2 also included the establishment of an IMO Climate Fund (ICF) so as to use the funds collected to expedite the uptake and deployment of zero-carbon technologies and fuels, with particular regard to the needs of developing countries, especially LDCs and SIDS. This document elaborates on how the funds raised from a levy per tonne of CO_2 emitted might best be used to expedite the transition to zero carbon fuels.

3 This document also takes account of the Dhaka-Glasgow declaration at COP 26 by the Climate Vulnerable Forum (CVF) comprising over 50 developing countries[1] which, inter alia, called for further work by IMO: "for establishing a mandatory GHG levy on international shipping" with "the majority of the levy's revenues to be employed as additional financial support for urgent climate actions, particularly by the vulnerable developing countries."

4 If the levy is to be successful in expediting a transition to zero-emissions which is fair and equitable, ICS suggests that the funds collected should be used for three main purposes:

.1 closing the price gap between conventional fuels and low- and zero-carbon fuels;

.2 supporting the rollout, inter alia, of new bunkering infrastructure that may be required, as well as other maritime GHG reduction projects, particularly in developing countries especially LDCs and SIDS; and

.3 additional financial support for urgent climate actions, particularly by the vulnerable developing countries, as suggested by the Dhaka-Glasgow Declaration.

5 It is not suggested that the IMO Climate Fund should be used for R&D of zero-carbon technologies and fuels as this will be addressed by the establishment of the IMRB/IMRF as set out in document MEPC 76/7/7 (Denmark et al.) together with the adjustments set out in document ISWG-GHG 12/3/2 (Liberia et al.). The IMRF is not an MBM and is a short-term measure which MEPC 78 has been invited to approve.

Discussion

Annual sum of funds that might generated for IMO Climate Fund

6 Before considering how the funds raised from a levy might best be used, it may be helpful for the Group to have a general understanding of the quantity of funds that might be raised by a levy. Assuming, at the time when the levy is first implemented, a total annual consumption of conventional fuel oil by international shipping of about 250 million tonnes (by

[1] Afghanistan, Bangladesh, Barbados, Benin, Bhutan, Burkina Faso, Cambodia, Colombia, Comoros, Costa Rica, Democratic Republic of the Congo, Dominican Republic, Eswatini, Ethiopia, Fiji, the Gambia, Ghana, Grenada, Guatemala, Guinea, Guyana, Haiti, Honduras, Kenya, Kiribati, Lebanon, Liberia, Madagascar, Malawi, Maldives, Marshall Islands, Mongolia, Morocco, Nepal, Nicaragua, Niger, Palau, Palestine, Papua New Guinea, Philippines, Rwanda, Samoa, Saint Lucia, Senegal, South Sudan, Sri Lanka, Sudan, Tanzania, Timor-Leste, Tunisia, Tuvalu, Uganda, Vanuatu, Viet Nam, Yemen.

that part of the global fleet comprising ships of 5,000 gross tonnage and above), a levy of, say, \$50 per tonne of CO_2 emitted (equivalent to \$157 per tonne for fuel oil consumed) would initially generate almost \$40 billion per year. A levy of \$100 per tonne of CO_2 emitted (equivalent to \$314 per tonne for fuel oil consumed) would generate about \$80 billion per year.

7 While ICS does not currently advocate what the quantum of the levy should be, it has suggested in document ISWG-GHG 10/5/2 that when the levy is first established, the quantum should take account of current Technology Readiness Levels (TRLs) and the worldwide availability of low- and zero-carbon fuels to which the industry can transition. Document ISWG-GHG 10/5/2 also suggests (as have the Marshall Islands and Solomon Islands in their proposal, originally submitted in document MEPC 76/7/12) that the initial quantum agreed by the Committee should be fixed for a set period and subject to a five-year 'ratchet' which could take account of future developments with respect to TRLs and the worldwide availability of low- and zero-carbon fuels.

8 If the five-year ratchet suggested in document ISWG-GHG 10/5/2 is taken forward, it should be expected that the amount of funds generated annually for the proposed IMO Climate Fund would initially increase in line with five yearly increases in the quantum of the levy. However, as the use of zero-emissions fuels becomes more widespread, the funds generated annually by the levy on CO_2 emissions would start to reduce significantly, possibly at some point around 2040.

Closing the price between conventional and zero-carbon fuels

9 It is suggested that the primary purpose of the proposed levy on CO_2 emitted (or of any other potential MBM) should be to close the price gap between conventional fuel oil and low- and zero-carbon fuels. In the first instance, reducing the price gap will be achieved by the reduced value and rate for fuels with a lower carbon intensity, as set out in annex 3 of the package proposed in document ISWG-GHG 10/5/2 (IMO Climate Contribution to the IMO Climate Fund).

10 ICS does not currently have a position on what the quantum of the levy per tonne of CO_2 emitted should be, but if the levy was initially set at, say, \$50 per tonne of CO_2 emitted, the cost per tonne of conventional fuel oil consumed would be \$157, whereas the cost of the levy for a low-carbon fuel such as methanol would be about \$67.5 per tonne of fuel consumed reflecting its lower carbon factor (as set out in paragraph 2.2.1 of the annex to resolution MEPC.308(73) *2018 Guidelines on the method of calculation of the attained Energy Efficiency Design Index (EEDI) for new ships*, as amended).

11 For fuels such as ammonia or hydrogen, with zero 'tank to wake' emissions, it is assumed that the carbon factor would be zero and that these fuels would therefore be exempt from the levy (or zero-rated) to provide an incentive that would encourage the take-up of such fuels, helping to reduce their cost in comparison to the cost of conventional fuel oil.

12 Account might also need to be taken of the carbon lifecycle assessment of alternative fuels. Subject to the LCA guidelines developed by the Organization, the rate and value of the levy applicable to low- and zero-carbon fuels could potentially be adjusted depending on how these low- and zero-carbon fuels are produced. However, in order to encourage the rapid take-up of new fuels such as hydrogen and ammonia, it is suggested that when a levy system is first established it should not initially differentiate, for example, between green and grey hydrogen. But, at some point in the future, as and when green hydrogen produced from renewable energy sources becomes readily available, the Organization could subsequently decide to differentiate between such fuels, depending on whether they were produced from fossil or renewable energy sources, by applying a different rate and value to the levy which applied. However, these are issues which will require careful consideration.

13 While further analysis is needed (and the cost of alternative fuels should reduce over time as they become more widely available) it is currently anticipated that zero-carbon fuels will initially be far more expensive than conventional fuels, perhaps by a factor of two or three times, making their widespread use by ships prohibitively expensive. Given that these fuels will not be exclusively available for shipping but in high demand by all industries, it is most likely that their price will remain high, even if available in sufficient quantities around the globe, and that non-scheduled (bulk/tramp) shipping, in particular, will be among the last shipping sectors that may be able to readily secure such fuels. Although the impact of a levy on closing the price gap will depend on the quantum of the levy, it is likely that the quantum agreed by the Organization, even if subject to a five-year ratchet, will be insufficient in itself to make a rapid and widespread take-up of alternative fuels by shipping economically viable. ICS does not yet have firm views on how this issue might be addressed but may follow-up with ideas at a future session.

Supporting the rollout, inter alia, of new bunkering infrastructure that may be required, as well as other maritime GHG reduction projects, particularly in developing countries including LDCs and SIDS

14 It is suggested that an appropriate proportion of the funding raised from a levy-based MBM could be used to expedite the transition by supporting the rollout, inter alia, of new bunkering infrastructure that may be required in ports throughout the world as well as other maritime GHG reduction projects, particularly in developing countries and especially LDCs and SIDS. The details of such programmes, including the impact these might have on the pricing of new fuels, would require further analysis and careful consideration, and could be determined by the proposed IMO Climate Fund with oversight from the Committee.

Additional financial support for urgent climate actions, particularly by the vulnerable developing countries, as suggested by the Dhaka-Glasgow Declaration

15 Noting the Dhaka-Glasgow Declaration, ICS agrees that it will be important for the IMO Climate Fund to provide additional out-of-sector support for urgent climate actions by the climate vulnerable developing countries, in particular LDCs and SIDS.

16 Other than that the proportion of the IMO Climate Fund to be used for out-of-sector purposes should be reasonable, and that the large majority of the funding from a levy should be used in-sector to help expedite the transition to zero-carbon fuels, ICS takes no view on what this proportion should be, which would be a political decision from IMO Member States. Nevertheless, one possibility for determining the amount of funds that should be used for out-of-sector purposes would be to link this to international shipping's share of GHG emissions from the total global economy which according to the *Fourth IMO GHG Study 2020* (depending on the definition used) is between 2 and 3 per cent.

17 For example, if a levy was initially set at, say, \$50 per tonne of CO_2 emitted, which would generate funding for the IMO Climate Fund of about \$40 billion per year, 3 per cent of this amount would be \$1.2 billion a year. However, if the levy was set at \$100 per tonne of CO_2, emitted (either initially or after the five-year rachet was applied) then some \$2.4 billion a year might be dedicated to out-of-sector purposes. Alternatively, depending on the quantum of the levy set, if Member States considered that a larger proportion of the funds would be appropriate to be used out-of-sector then a multiplier might be applied, but still linking this amount to international shipping's share of the world economy's GHG emissions.

18 ICS continues to concur with the view of those delegations at MEPC 76 which expressed concern about the use of the Green Climate Fund, set up under the United Nations Framework Convention on Climate Change (UNFCCC), as a mechanism to collect and distribute funds, and agrees that such a mechanism should be kept under the auspices of IMO, in accordance with the principles of the IMO Convention, the MARPOL Convention and the Initial IMO Strategy. However, recognizing that this is also a political question, ICS remains open to considering ideas about the potential relationship between the IMO Climate Fund and the Green Climate Fund, either before or after the proposed MARPOL Annex VI amendments are adopted by the Organization.

Action requested of the Working Group

19 The Group is invited to consider the information and comments set out in this document and take action as appropriate.